

Comments to “SCHEER - Public consultation on the Preliminary Opinion on scientific evidence on radiofrequency”¹

Introduction

This SCHEER report² has by design a predetermined outcome in favor of the telecommunications industry’s needs of continued adherence to ICNIRP’s guidelines. The SCHEER working group has conflicts of interest and is unbalanced as to the selection of its members. The SCHEER Opinion fails to include any of the many scientific experts who agree that there is sufficient evidence of health risks well below ICNIRP’s guidelines. Thereby obstructing decisions to adopt much lower limits for better protection of the public and the environment. SCHEER’s so-called “assessment” is of low quality and fails to meet basic scientific criteria. Furthermore, SCHEER completely ignores to do risk assessment for the environment.

The SCHEER Opinion mixes risk assessments and risk management

The task for the SCHEER group is to **“Assist the Commission in the preparation of legislative proposals and policy initiatives”**³. Thus, SCHEER is part of the political system and the main task of SCHEER is to assist in risk management.

The European Environmental Agency (EEA)⁴ was established in the ‘90s due to the acknowledgment that a clear distinction between the European political system (responsible for risk management) and the organisation, providing the scientific risk assessment, is crucial.

The main task of the **EEA** is to provide sound, independent information on the environment and related public health, including scientific risk assessments. The basis and motives behind the judgments that are fundamental in the assessment of risk and the handling of uncertainty, is a major contentious area⁵. Therefore, it is a main obligation for the EEA to ensure that the scientific assessors are not disqualified due to political and economic interests.

However, according to the Rules of Procedure from 2016 for the scientific committees under the EU commission, SCHEER may perform risk assessments. In that case, “The Scientific Committees shall perform their tasks in compliance with the principles of excellence, independence, confidentiality, commitment and transparency”⁶.

The present SCHEER report comprises both an opinion (risk management) and an assessment of the science, which is in clear conflict with the principle of a clear distinction of risk assessment and risk management. It also fails regarding both excellence and independence.

As RF EMF is an emerging hazard, with huge amounts of scientific evidence for adverse effects, the SCHEER committee should refer to the EEA to perform the independent risk assessment of the science, as a tool for the subsequent risk management process.

¹ https://health.ec.europa.eu/consultations/scheer-public-consultation-preliminary-opinion-scientific-evidence-radiofrequency_en

² https://health.ec.europa.eu/system/files/2022-08/scheer_o_044_0.pdf

³ <https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups/consult?do=groupDetail.groupDetail&groupID=3422>

⁴ www.eea.europa.eu/about-us/who

⁵ <https://www.eea.europa.eu/publications/GH-07-97-595-EN-C2/riskindex.html>

⁶ https://ec.europa.eu/health/scientific_committees/docs/rules_procedure_2016_en.pdf

Conflict of interest – ties to the telecommunication industry

The flaws in the SCHEER report clearly point to conflict of interest and/or lack of excellence of the SCHEER members. Half of the experts on the SCHEER working group have no expertise on RF EMF health risks, thus not fulfilling the criteria of excellence.

As in the case of the last SCENIHR opinion from 2015 there are experts with ties to the telecommunications industry in the working group. In contrast, there are no representatives from the many scientists with expertise on RF EMF health effects, acknowledging the evidence for health risks and impacts on the flora and fauna below the ICNIRP 1998 guidelines, e.g., expressed in the EMF Scientist Appeal signed by 256 EMF scientists⁷.

There are clear indications that the SCHEER report is biased towards the telecommunications industry and ICNIRP's perspective; as for instance, expressed in the report's suggestion on how to handle that the new 5G technology - causing doubling of base station transmitted power and a health risk from high intensity beaming formation - **"can trigger the population's concern about potential health risks"**.⁸ (page 17)

The selection of scientific evidence is biased

A large body of relevant, solid, high-quality research has been omitted, while SCHEER claims to have included only meta-analyses and reviews systematically.

In addition, they include other references "when necessary". This criterion is both subjective and unscientific and not further qualified.

For example, on the cardiovascular effects SCHEER includes a report from the Health Council of the Netherlands. Referring to a report of a health council is not in accordance with scientifically correct procedures. At the same time SCHEER exclude primary scientific evidence in terms of several recent animal studies showing clear effects.

Dual bias - The evaluation of included studies are insufficient and biased

Regarding studies that do not find effects, SCHEER fails to analyze whether it has failed by design, including non-informative studies, and creating unfounded doubt (eg. regarding sleep disturbance).

Irrelevant criteria are used to discard a large body of studies that finds effects, with the criterion "insufficient dosimetry". It is simply unscientific when the objective is hazard identification (establishing a causal association) of real-life risks to the public and the environment. SCHEER repeatedly refers to a report from the Health Council of the Netherlands, which excluded studies that applied to exposure from mobile phones. SCHEER completely ignores that real life effects from RF radiation are dependent on such parameters as frequency, intensity, polarization, and modulation. Therefore, simple dosimetry as a main criterion is irrelevant.

The methodology applied for evaluating the "weight of evidence" is non-scientific

The applied method of "weighing the evidence" is defined in a SCHEER document from 2018.⁹ The described method is not an established scientific method. In essence, this method "counts" articles that find or do not find effects, without considering systematic differences in design and time of exposure that

⁷ <https://emfscientist.org/>

⁸ https://health.ec.europa.eu/system/files/2022-08/scheer_o_044_0.pdf

⁹ Memorandum on weight of Evidence, SCHEER, revised version 2018

https://www.researchgate.net/publication/326546020_Memorandum_on_weight_of_evidence_and_uncertainties_Revisi_on_2018

may explain the differences in outcome. This approach is aggravated by the fact that only a minor part of the scientific evidence is included, and the conclusion in many parts rely on the work of the Dutch report.

SCHEER fails to specify whether a conclusion of “no effects” is based on studies on short-term exposure or long-term exposure. This is an important factor to assess as no effects after 1 hour of exposure might turn to adverse effects if exposure is continued and long-term as in the real world. An example is the conclusion in the section on cancer epidemiology, where a series of meta-analyses show consistent carcinogenic effect from long term exposure. Nevertheless, SCHEER concludes that there is “weak evidence”. This misleading conclusion arises mainly because SCHEER consider the “no-effect” from short term exposure to be conflicting evidence.

Applying the SCHEER methodology on e.g. smoking, would render the evidence on health effects of smoking "very weak". Industries have used this exact method for decades to protect their products, and now SCHEER is using the same methodology on RF EMF.

Another example concerns the cardiovascular effects. Here SCHEER concludes that there is “strong evidence for no-effect”. This conclusion is unscientific, as a few studies can never in itself be seen as evidence for no effect. Furthermore, the conclusion is based mainly on experimental human short term exposure studies (minutes to a few hours) but several long-term exposure studies show adverse effects thus invalidating the conclusion.

Conclusions regarding health effect conflict with reports from other EU bodies

The SCHEER conclusions regarding health effect and consequences of the introduction of new technologies conflict with recent EU reports:

- **European Parliamentary Research Service’s EPRS/STOA** report “*Health impact of 5G*”¹⁰. The conclusions of the comprehensive review declared sufficient evidence for cancer from RF EMF in animals, sufficient evidence for adverse effects from RF EMF on the fertility of men, male rats and mice, and that RF EMF is probably carcinogenic to humans. In short, the EPRS/ STOA report shows that RF EMF is harmful for health. The report subsequently calls for measures to reduce RF EMF exposures (p. 153)
- **European Economic and Social Committee** “*Digitalisation – Challenges for Europe*”¹¹. Page 85: “*Each day the number of EHS sufferers increases according to new estimates, between 3% and 5% of the population are electro-sensitive, meaning that some 13 million Europeans may suffer from this syndrome.*” “*The EESC emphasises the need to step up the application of the ALARA principle, bearing in mind the risk of non-thermal biological effects of electromagnetic emissions.*”

These conflicting conclusions from different EU bodies underscore the need for a sound, independent assessment of the scientific evidence provided by independent scientific assessors.

It must be reminded that the EU has adopted by law the **Precautionary Principle** and any scientific evaluation should comply with this. *The precautionary principle is detailed in Article 191 of the Treaty on the Functioning of the European Union. It aims at ensuring a higher level of environmental protection through preventative decision-taking in the case of risk.*¹²

The ignorance of environmental effects

Both ICNIRP 1998 and 2020 guidelines fail to include effects on the environment: insects, birds, other animals, and plants. SCHEER also ignores this important aspect although the mission of the SCHEER is to assess risks both to human health and to the environment.

¹⁰ [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/690012/EPRS_STU\(2021\)690012_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/690012/EPRS_STU(2021)690012_EN.pdf)

¹¹ <https://www.eesc.europa.eu/en/our-work/publications-other-work/publications/digitalisation-challenges-europe>

¹² <https://eur-lex.europa.eu/EN/legal-content/summary/the-precautionary-principle.html>

In conclusion

- As the SCHEER report fails in regard to both excellence, transparency and independence,
 - As the conclusion from other EU bodies are in disagreement,
 - As the risk to both the environment and human health should be assessed,
- a scientific assessment and risk assessment should be performed by the relevant EU body, The European Environmental Agency.

Scientific evidence shows that RF EMF causes chronic oxidative stress, hormonal alteration, fertility problems, opening of the blood brain barrier, DNA damage, cognitive and behavioral alterations and many other biological alterations that causes problems to human health and to nature.

Several groups of scientists launched appeals and consensuses to push political decisions for better protection of the population, the animals and plants from RF EMF damages.^{13 14 15 16 17 18 19 20}

Independent science must be included because the RF EMF damages are already increasing the health care cost.

The employment of 5G is a clear example of the failure of the process of scientific risk assessment and risk management.

¹³ <https://www.icems.eu/docs/BeneventoResolution.pdf>

¹⁴ https://www.icems.eu/docs/Venice_Resolution_0608.pdf

¹⁵ <https://www.iemfa.org/seletun-statement/>

¹⁶ <https://www.eesc.europa.eu/sites/default/files/resources/docs/potenza-picena-scientific-resolution-2013.pdf>

¹⁷ <https://bioinitiative.org/preface/>

¹⁸ <http://www.5gappeal.eu/>

¹⁹ <https://www.stralskyddsstiftelsen.se/2021/12/16/nordic-appeal-from-11-ngos-calling-for-better-protection-against-wireless-technology/>

²⁰ <https://emfscientist.org/>

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